Srem Housing Database Project - Field Report Warsaw & Srem (4/1 - 4/14/96) Tony Phipps, Abt Associates Inc.

1.0 Summary & Overview

Under the terms of RFS #__36__ of PADCO's USAID contract #EUR-180-0034-00-B-4029-00, Abt Associates staff completed a third field visit to Warsaw and Œrem in order to support the implementation of a housing condition survey and development of a micro-level database which will be used to simulate and analyze allocation schemes and rent differentiation, and to estimate the costs of repairs to the communal housing stock. The field visit also included a two-day trip to Bielsko Bia_a to review their housing management systems and assess their readiness to implement a housing condition database such as that being tested in Œrem. More specifically, five primary purposes were envisioned for the present scope of work:

- To meet with the new director of TBS and Deputy Mayor of Œrem to confirm program purposes, schedules and implementation strategies; and to finalize procedures for survey completion, data entry and analysis, and identify technical support required for survey completion;
- To make final corrections in the data collection forms and to clarify coding schemes and costing methodology for specific data elements;
- To complete the beta test of the inspection instruments and database programs, and to review results with developers of the database (Qbit), and to identify changes in the program that will have to be made in order to conform to the housing survey and the types of analyses intended;
- To review with gmina cost engineers (estimators) the data elements and methodology for deriving unit costs so that inventory-wide (global) estimates of repair costs for the communal housing stock could be derived from the database program; and
- In Bielsko Bia³a, to assist PADCO in evaluating the city's housing management systems (particularly with respect to wspólnotas/condominiums) and to assess for PADCO the potential utility and relevance of the Œrem database and inspection methodology for management of the communal housing stock.

Summary

All of these objectives were achieved with the following major cautions and exceptions:

1. The completion of the Œrem database and survey of buildings will only happen with the continued constant pressure of PADCO/Abt on the city and TBS to follow through on their commitments of staff time and schedules. Over the past year, given the absence of

leadership at TBS, the persons with project responsibilities (city and TBS) have only taken initiative when PADCO, QBIT and/or Abt staff have been present or directly involved in project oversight. Hopefully, the new leadership at TBS (Eugeniusz Michalak) may change that situation with his heightened awareness of the importance of accurate information about the state of the gmina's housing stock.

- 2. QBIT must finalize the database program so that it can be used for data entry and analysis. Primary problems with data entry screens must be corrected immediately so that inspection data can be entered in (and retrieved from) the system.
- 3. The city of Œrem and the TBS are far too reliant on one person to manage their data and to support management operations. This dangerous situation creates bottlenecks for current work, and possible deviations from program purposes (e.g. MIS director making substantive judgments about, or changing, previously accepted survey materials). TBS personnel should be provided the basics in computer skills and database systems management so that they are not totally reliant on the city's MIS Director for every detail of their information systems.
- 4. TBS mid-level personnel (engineers, inspectors and data entry clerk) are all competent and should be given greater responsibility for completion of the project. This delegation of responsibility will help mitigate the problems of point #3 above.
- 5. The prospects for elaboration and dissemination of the Œrem housing management system (database development, housing unit inspections, inventory management, rent setting and analysis, investment and rehabilitation analysis, etc.) would appear to be bright because of the similarity of management issues and the expressed concerns of the city/ZGM for a more flexible approach. However, USAID's abrupt intervention (without prior notice to PADCO/Abt personnel) and expressed intent to assume full responsibility for initiating all further dialogue with the city through Mr. K. Jaszczo³t, seriously undermined the credibility of the PADCO/Abt team before the Mayor and ZGM Director, and made it impossible to achieve closure on the determination of program objectives and next steps in the area of housing privatization and management, and database development.

1.1 Background

Œrem is one of six cities selected by PADCO, Abt and USAID to serve as model communities to be provided with technical assistance in managing the transition from a centralized command economy housing market to a decentralized market-driven housing sector oriented toward addressing local housing needs, priorities and resources in accordance with the Polish Housing Act of July 2, 1994. Under this law, gminas are responsible for meeting the housing needs of their citizens, for maintaining and managing the stock of communal housing, for setting rents, for establishing and operating a housing allowance program to provide financial assistance to households unable to afford increased rents, and for providing detailed information about their housing strategies and costs to voivod and central governments. These responsibilities cannot be fulfilled without comprehensive, accurate and timely information about...

- 1. the housing needs and resources of families who are living in communal housing and cooperative housing, and/or who are eligible for housing allowances;
- 2. the occupancy features, rent levels and physical characteristics of dwelling units for which the gmina is responsible;
- 3. the operational status, costs and characteristics of families enrolled in the gmina's housing allowance program;
- 4. the operational status, budget and costs of the gmina's (TBS) housing management program including the provision of utilities, maintenance expenditures, capital repair requirements, program administration and other development functions.

Over the past year previous visits by PADCO consultants to the City of Œrem had confirmed the nature and extent of these informational requirements, and have established a joint program with the city which would...

- Design, test and implement a building survey of all of the city's 97 residential buildings and a dwelling unit survey of a sample of the flats in each building;¹
- Design, develop, test and install a flexible and interactive database to acquire, organize and analyze the information derived from the housing condition survey and from other sources of information about the housing needs and financial capabilities of its residents, and about the size, facilities and equipment of the city's housing stock;
- Analyze the results of the survey in combination with the other demographic and financial information

In April of 1995 TBS reported 105 buildings under TBS management. Eight of those building have since been sold, leaving 97 dings for which TBS is responsible. Conversation with Mr. Garbarczyk, TBS Sr. Manager.

- to determine the repair needs of the communal stock;
- to estimate the overall costs of repairs to different types of systems;
- to model the relationship among tenants' housing needs and capabilities (including use of the housing allowance program), housing conditions, TBS' utility and maintenance expenses, and capital repair budgets; and

to assess the ability of residents to absorb rent increases necessary to pay for a greater share of maintenance expenditures and capital repairs.

The acquisition, presentation and analysis of these data will enable gmina officials to manage their extremely limited budgets more effectively, monitor more closely the provision of housing services required by laws and regulations, anticipate their future resource requirements more accurately, and above all make rational, fact-based decisions about revenue, expenditures, housing inventory management and public benefits.

1.2 Project Status

Given this overall mission, the Œrem housing database project is on-track with respect to the development of substantive products, but is considerably behind schedule with respect to implementation of the housing survey and acquisition of other necessary data. Accomplishments to date include:

- 1. Elaboration and confirmation of project goals and methods among Œrem officials, PADCO, USAID and Qbit (designers of the database); the new Director of the Œrem TBS, Mr. Michalak, is fully committed to the project because he needs the data to justify budget requests, and support financial/investment decisions;
- 2. Design, preliminary testing and final revision of the Œrem Prototype Housing Inspection instruments, and specification of analyses to be performed once data are entered in the system;
- 3. Design, development, documentation and preliminary testing of six beta versions of the database program (latest program is QBIT version 1.06);
- 4. Addition of cost estimating capability to the database program so that the financial implications of building survey results can be assessed;
- 5. Development of specifications for deriving unit-cost estimates from available estimating systems, and consensus on application of cost estimates to backlog of required repairs in sampled buildings;
- 6. Training of 9 key Œrem TBS and city staff who will be responsible for maintaining the database, conducting the building and unit surveys; and entering the inspection results in the database;

- 7. Direct downloading (by QBIT) of TBS file information about gmina housing units, communal housing residents and housing allowance participants into the database, so that primary information exists on one system.
- 8. Review and testing of data entry screens as part of beta test for latest version of program;
- 9. Testing of building and dwelling unit inspection forms among 6 buildings and 25 dwelling units to assess feasibility, scheduling and potential problems in data collection process;
- 10. Estimation of required sample sizes for selection of dwelling units to be surveyed (± 450 out of 1120) to provide a confidence interval of less than 5 percent; 100 percent of the buildings will be inspected; and
- 11. Identification of final corrections and amendments to the Obit database program so that it can be used for full-scale data collection and analysis.

TBS staff will begin full-scale implementation of the building survey on 4/15/96 (originally scheduled to be initiated in October 1995). The city's target is now to complete the survey within the next two months (April and May of 1996) although given expected completion rates and inspector productivity, it would be possible to complete it one month earlier if all staff were made available for the project. Assuming a survey completion date of mid-June, late August would be the earliest time that survey results could be analyzed and reported at a Gmina Housing Partnership Conference.

1.3 Immediate Steps Required

In order to complete the survey according to the revised schedule, the following steps are essential:

- 1. Secure assurances of the Deputy Mayor (£o¿yñski) and the Director of TBS (Michalak) that the latter will assume responsibility for finalization of the data collection effort and will assure the commitment and cooperation of all staff working on the project (no further delays or interference by other parties will be permitted).
- 2. Bring the data collection forms, coding schemes (TBS) and data entry screens of the database program (QBIT) into conformance with each other; finalize the data entry system (QBIT);
- 3. Develop "unit cost" estimates for repairing building level and unit-level deficiencies found in the survey (Rz¹dkowski); enter unit costs into database, and test costing algorithms (QBIT) on preliminary sample of units and buildings;

- 4. Complete building surveys of 91 remaining buildings (out of 97), and complete unit surveys of \pm 430 dwelling units under TBS management;
- 5. Establish quality control procedures, monitor progress and review and correct survey deficiencies as necessary before entry into database (TBS);
- 6. Enter completed surveys into database, and check for accuracy and completeness (TBS).
- 7. Analyze the results of the survey and prepare results for presentation to the city and for dissemination to other gmina housing partnership cities (Abt/PADCO).

In order to present program results at a Fall conference, steps 1 - 6 must be completed by the end of May, so that the analysis and write up can be finished by the middle of August.

2.0 Field Visit Chronology (April 1- April 14, 1996)

2.1 Œrem I

After preliminary conversations with Ms. Martha Sickles of PADCO's Warsaw office on the evening of Monday, April 1, 1996, Mr. Phipps proceeded the next morning to Œrem where, over the ensuing four days he held detailed discussions with the following gmina and TBS staff:

- Mr. Krzysztof £o, yński, Deputy Mayor of Œrem
- · Mr. Eugeniusz Michalak, newly appointed Director of TBS
- Mr. Jerzy Garbarczyk (Assistant Director of TBS);
- · Mr. Wies³aw Rz¹dkowski, construction estimator:
- · Mr. Krzysztof Miko³ajczak; MIS director for Œrem.
- · Mr. Piotr Cieszyński, interpreter/translator.
- Other Engineering staff and data entry personnel of TBS.

All meetings were held in TBS' office or in Mr. Miko³ajczak's office. Initial discussions with the mayor and the newly appointed Director of TBS confirmed the intent of both of them to complete the inspections and the creation of the database. They say they now recognize the importance of having accurate and up-to-date information on dwelling unit conditions, rents and costs for justifying budget requests² and making informed decisions about expenditures and management policies. The mayor and the TBS director are also concerned about basic inventory controls and documentation of all gmina assets. (It is noted that having a TBS manager in place who has the support of the Mayor will obviously benefit the entire effort). Mr. Phipps provided a preliminary outline of the purpose and scope of his visit, and expressed his dismay that very few of the steps indicated at the conclusion of his last visit in

TBS's last budget request of 350,000 PLN was granted at only 215,000.

January had in fact been undertaken (e.g. no identification/training of staff, no trial of the data entry programs by Mikolazczak, no completed surveys of buildings or units, no cost estimates, etc.). The only steps that seem to have been initiated were (a) that a computer had been purchased 4 days previously (after a letter to the Mayor from Ms. Sickles registering disappointment in the lack of progress), as if that was the reason everything else had been held up; and (b) that some of the buildings had been partially inspected (but no units). Worse, it was clear that some of the final decisions regarding the data collection forms *had been undone* by Garbarczyk and Miko³ajczak without conferring with PADCO, Abt or QBIT. It was as if nearly everything had been dropped or unraveled after January 22 when the "final" inspection forms had been delivered to TBS..

In addition to the initial meetings with £o¿yñski and Michalak, the following meetings were held (results in parenthesis):

- 1. Tuesday and Wednesday, meetings with Garbarczyk and Miko³ajczak were held to re-establish the purpose, content, coding and methods of the building surveys; both were notified that if there were no data entered in the computer to carry out the beta tests by Wednesday of the following week, the entire program might have to be scrapped. (All forms, codes, data elements and survey methods were discussed and clarified with respect to interpretation; this had originally been done in April of 1995 and again in January of 1996, but most of that information had been "lost" or forgotten; information that was dropped from the survey was re-introduced);
- 2. Wednesday, cost estimating procedures and specifications for the database were reviewed with Mr. Rz¹dkowski, based on final versions of the inspection forms (*A final scope of work was drafted and hand delivered to PADCO at the end of the week, and reviewed and approved by both PADCO and Rz¹dkowski the following week; Mr. Rz¹dkowski accepted the requirement that preliminary cost estimates be delivered by the end of April). Copy of Scope of Work attached.*
- 2. Wednesday and Thursday all four inspection forms were re-drafted and recorrected in both Polish and English, and Polish versions were copied for training of inspectors and beta test inspections; coding schemes were incorporated directly into the forms (forms for the beta test and training were prepared by the interpreter, Mr. Cieszynski; and these were given to Miko³ajczak for distribution to the inspectors; copies were faxed to QBIT). It is noted that no changes to the QBIT database had been made between December 19 and March 22, despite the fact that QBIT had been sent copies of the latest data collection forms in January, and that data entry screens could have been updated at that time.
- 3. Friday, five staff members of the TBS engineering department were trained in both the building and dwelling unit inspection, with a practice session held in one of the TBS buildings not far from the office (staff indicated some reluctance to "interview" residents of the TBS buildings, but none had any technical problems with the forms or the coding schemes; Ms. Ewa Kleczewska, the chief engineer of TBS will act as coordinator for the inspection work).

- 4. Thursday and Friday, preliminary building inspection data were entered into the database (version 1.05) by Miss Ewa Weber, administrative accountant, under the supervision of Mr. Miko³ajczak; *it was clear that this was the first time that data entry using the program screens had been undertaken*; over 30 separate problem items were identified and communicated to QBIT by Mr. Miko³ajczak; there was no explanation why these problems had not been identified previously, since most problems referred to versions of the database that had been in Mr. Miko³ajczak's possession since late December *(Mr. Miko³ajczak was asked to write down the problems found in data entry, and to send these to QBIT by fax; QBIT was able to repair several of the problems right away in version 1.05 and send the corrected program back by modem on Tuesday of the following week).*
- 5. Wednesday and Thursday, Mr. Phipps developed estimates of confidence intervals for three groups of buildings: (a) those built after 1970; those built from 1945 to 1970; and © those built before 1945. Confidence intervals and sample selection probabilities are shown in the following table; a target sample of 40.5 percent of total units would provide a confidence interval of roughly 4.4 percent for differences of proportions of the sample with a given type of problem.

Calculation of Confidence Intervals for Œrem Samples

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Group	Definition	bldgs (all)	units (all)	sample %			no problems	Confid. Interval
Group 1	Newer panel bldgs (1970-present)	7	318	33.3%	106	10.0%	90.0%	±5.7%
Group 2	Post-WWII, older (1945- 1970)	15	317	33.3%	106	33.3%	66.7%	±9.0%
Group 3	Pre-WWII, older (1880-1945)	75	483	50.0%	242	50.0%	50.0%	±6.3%
	TOTAL SAMPLE	97	1118	40.5%	453	36.8%	63.2%	±4.4%

- 6. With respect to next steps, Mr. Phipps confirmed with Mssrs. Michalak, Garbarczyk and Miko³ajczak the importance of competing the following steps prior to meetings Thursday and Friday of the following week:
- a. That at least 6 buildings and 25 units in those building be completely inspected by Wednesday, April 10;
- b. That data from those inspections be entered into the database, and that any problems encountered in doing so should be documented (in writing), so that QBIT could be informed of changes that need to be made in the program.
- c. That inspectors should be de-briefed about any issues or problems that developed during the administration of the building survey, so that these could be corrected before the main data collection effort is undertaken.

- d. That inspectors keep track of the time required to complete the survey so that estimates of level of effort and resource allocations for the main survey can be developed (note: original estimates were that each building inspection would take "at least one hour" and that the dwelling unit inspections would take about 45 minutes.)
- e. That Mr. Miko³ajczak should document all problems encountered in data entry, and send these with the latest copy of the inspection forms to QBIT.

2.2 Bielsko Bia_a (Tues/Wed. 4/9-10)

The threefold purpose of the Bielsko Bia_a visit was

- (a) To provide an overview of the Œrem housing database system to Deputy Mayor Jerzy Krawczyk and ZGM Director Wojciech £ozowski and ascertain their interest in developing such a system for Bielsko Bia_a;
- (b) To review ZGM's housing management systems and current data processing capabilities, and assess the degree to which the Œrem database approach might enhance their management capabilities; and
- (c) To determine whether Bielsko Bia³ a might be interested in carrying out a pilot condominium (wspólnota) management pilot project in order to find solutions to the problems inherent in the new form of ownership.

Over Tuesday and Wednesday, April 9 and 10, a series of meetings were held with Krawczyk, £ozowski, ZGM Deputy Director Zeman, Ms. Ma_gorzata £yko (Head of BB AWIM), Ms. Barbara Meisner (Head of wspólnota unit), Mr. Marciniak (Qbit), Phipps and Sickles, and other members of the ZGM staff. Mssrs. Jan Czarniecki (PADCO) and Krzysztof Jaszczo³t, USAID representative. Details of these discussions regarding wspolnotas and housing privatization and management are provided in a separate report by M. Sickles. The following points summarize discussions about developing a housing management database similar to that of Œrem:

- The Mayor and the ZGM Director are increasingly concerned about the lack of up-to-date and accurate information about the condition, cost, location and value of all housing and non-housing assets (e.g. land and commercial property) pertaining to the city.
- The Bielsko Bia³a ZGM maintains an information system based upon a Novell 3.11 local area network (LAN) on one server with 18 nodes (personal computers) that essentially runs two types of database programs for managing the city's housing and nonhousing properties:
- 1. A Clipper (DOS-based) database program written some time ago by a local database firm that maintains current information on 13,600 properties (apartments): 9,600 city-owned buildings, 1,300 privately owned buildings, 450 gardens, and 400-600

garages and kiosks; the database provides limited information on facilities (e.g. usable square meters of rental space), rents, utilities, occupancy, etc.

2. A Clipper (DOS-based) database providing a limited accounting system for the 390 wspolnotas (partially privatized condominium buildings); the primary function of the system is to provide an accounting of all costs allocated to the individual units.
ZGM personnel note that these databases are inflexible and not user-friendly; every time they want to analyze the data or prepare a report, they must call the original programmers to do it for them; instructions for using the system are not helpful or self-evident.
The systems do not maintain historical data, so that trends and changes in condition cannot be analyzed.
Maintenance records (ekploatacja) are maintained separately and cannot be related to other information on the condition, size, cost or location of units; detailed breakouts by unit locations (e.g. ADM geographic areas within the city) and types are not possible without special intervention of the programmers.
The City and ZGM are particularly interested in a comprehensive asset management database that would have mapping capability and linkages to GIS databases (geographic information systems) describing the location and characteristics of all city-owned assets;
In addition to ZGM there are currently at least three separate city agencies with responsibility for land-use planning, infrastructure development and geodesy (mapping)—all under the mayor's control; the Mayor is now in the process of setting up an Office of Information Systems to bring many of the separate data management functions under one roof; a search for a Director for this office is now under way.
After reviewing ZGM's data processing capabilities, the PADCO/Abt/Qbit team presented the Œrem Housing Management Database System to the Mayor and key ZGM personnel. It was obvious that the system was much more user friendly that their current system, and had far greater reporting and analytical functions than they were used to.
There was a clear interest on the city's part in being able to test out the Œrem system with their own data and reporting needs;
The city/ZGM is less interested in the rent analysis capabilities of the Œrem system, because they have already committed themselves to a complex point-based system based on unit conditions, sizes, facilities and occupant characteristics;
they are very interested in how such a program might be adapted to their needs for a comprehensive asset management system that will enable them to value properties (including land and commercial buildings) and make investment decisions for new

projects or rehabilitation opportunities, as well as to keep track of rents, maintenance costs, dwelling unit conditions and repair needs.

The team told the Mayor and TBS Director that we would send along a copy of the Œrem database program as soon as beta test corrections had been implemented in the program. QBIT concurs that the copy of the program sent to BB should be a "limited use" trial version limited to, say, 50 buildings and 500 units.

On the afternoon of the second day, in the final meeting with Krawczyk, £ozowski and Zeman, the team was dismayed to learn from Mr. Krzysztof Jaszczo³t (acting under instructions from Warsaw) that USAID had decided to take over all further contacts with the city on future USAID-funded cooperation, that other consultants would be brought in, and that (separately) support for housing privatization (wspólnotas) and information systems and database development were not on AID's list of priorities (despite the Mayor's obvious interest in support on these issues). Towards the end of the meeting it was not possible to reach any commitment or closure on next steps in these areas because of Mr. Jaszczo³t's intervention and deviation from the central agenda that had been established the week before.

2.3 Follow-Up Visit to Œrem (Thursday/Friday, April 11-12)

On the return to Œrem it was verified that four inspectors had completed inspections of the 6 buildings and 25 dwelling units scheduled the prior week

- No problems were encountered in requesting personal information from tenants (income, education, occupation, perceptions, etc.)
- Building inspections averaged 45 minutes each; unit inspections averaged 30 minutes:
- Several items and procedures on the unit inspections were clarified, and corrections made to the forms.
- Data entry screens for unit inspections were tested and more than 35 items requiring fixing were identified.

The final day of the visit, M. Sickles and T. Phipps reviewed the major problem areas on the unit and building inspection forms with both City and TBS staff, and with QBit staff (Marcinak) by phone. The primary objective was to group the problem areas into three categories:

A.. Database and/or inspection form problems that have to be addressed immediately in order to permit the inspectors to go forward with the main inspections and enter the data in the system;

- B. Database and/or inspection form problems that have to be addressed over the next couple of weeks so that the program can be used for reporting and analysis; and
- C. Desirable improvements that without additional cost could be implemented to make the program easier (more convenient) to use.

It was clear from the nature of the problem items that nearly all of them could have been identified by Miko³ajczak 3 to 4 months previously (they were in the original program) had he done the job he was being paid to do...test the system.

Mr. Marcinak promised to make himself available for consultation with Phipps and Sickles on Sunday at the Posnan Computer Fair so that these specific groups of items could be addressed.

At a final meeting with Deputy Mayor £o¿yñski, TBS Director Michalak and Mr. Miko³ajczak, Phipps and Sickles reviewed the status of the beta test, informed them of the interest of Bielsko Bia³a in the Œrem model, and proposed a schedule for completion of the building inspections so that analysis of the results could begin. The Mayor stated that he felt they could be "finished" in two months (mid-June). (A fast-track schedule would call for completion in mid- May). Both Michalak and £o¿yñski accepted the concept that the database was now "frozen" and that no further corrections were permitted to be made unless absolutely necessary. It was suggested that it would be desirable for Mr. Miko³ajczak to attend the Sunday meeting in Poznañ so that discussion of the necessary corrections could be shared directly with Mr. Marciniak.

Note: on Saturday all final corrections were made to the Polish versions of the inspection forms (including coding); and these were then presented to Qbit and Miko³ajczak in Poznañ on Sunday. All of the most important changes required for completion of the database program were presented by Miko³ajczak to Qbit at that time.

3.0 RECOMMENDATIONS AND LESSONS LEARNED

On the basis of the field visit to Œrem, pending issues and results may be summarized as follows:

PADCO must follow up with senior Œrem officials (Deputy Mayor and TBS Director) the commitment of the city and TBS to complete the inspections according to the schedule proposed (mid-June at the latest)

TBS and other staff of the city should be trained by QBit in use of the program (and basic computer use) so that they can assume responsibility for this program and become more independent of Mr. Miko³ajczak. This training could be incorporated as part of QBit's second training.

- TBS/Michalak should immediately identify staff and procedures for quality control once completed inspections are brought in from the field (checking forms for accuracy and completeness prior to data entry).
- Unit cost information should be derived over the next 3 weeks, and submitted to QBit for input to the database; final subroutines for deriving cost estimates should be prepared for review by PADCO and Abt prior to Abt's return in June.
- The city (Deputy Mayor) and TBS (Michalak) must identify those data elements (e.g. names of registered tenants, decision numbers, etc.) that can only be changed in the database after confirmation and approval by the city and/or tenant. The city should not have separate and independent access to the TBS database, and TBS should be the sole administrative organization responsible for inputting change data.
- QBit must complete the corrections to the database at the soonest possible time so that the final version will be available for TBS to input inspection results over the coming two months.
- PADCO and Qbit should send a limited use copy of the Œrem database to the ZGM in Bielsko Bia³a for review by them.
- Tony Phipps should review final procedures for application of the cost data to derivation of global repair cost estimates as a whole for the three groups of units and for the stock as a whole; these should be shared/discussed with QBit to determine the best way to implement this part of the analysis.

Lessons Learned

1. Make certain on all database development projects that the goals and desired project outcomes are specified and committed to BEFORE the database has been designed, and that local support for the project has been defined.

Comment: The Œrem project has gone through numerous revisions and adaptations because the initial concept was not stable, and the institutional leadership supporting the project (Œrem TBS) was not consistent after Mr. Pokrzywniak's accident. There was no clear mandate or leader to carry through the project at the local level from one stage to the next.

2. Make certain that roles and responsibilities of key project staff and consultants are clearly specified and committed at the beginning of the project.

Comment: PADCO has sent four different groups of people to Œrem to work on this project; this has added a great deal of confusion, delay and fragmentation to the database development process, and has undermined the ability of the project manager to follow through and support the project.

3. Maintain separate roles for local government client representative (POC) and key implementation staff; management oversight should always be separate from implementation.

Comment: In Œrem the absence of leadership at TBS (October - March) has meant that decisions about policy and implementation have been inconsistent or absent all together, and/or have been made by the wrong people (Mr. Miko³ajczak), and have permitted individuals at lower levels who lack either knowledge or authority to block or divert implmentation.

4. Database design and programming with multiple sets of data is a complex process and should be kept to the simplest possible scheme; key decision makers (policy level, technical level, programming, project management) must be able to communicate frequently and from a consistent set of information.

Comment: The Œrem housing database has evolved over 15 months in two languages, 2 countries, with 7 key organizations (Œrem city, Œrem TBS, USAID/Warsaw, PADCO/Warsaw, PADCO/Washington, Abt/Cambridge, and Qbit/Gliwice) and constant changes in key people. The program attempts to merge existing housing data with new data on condition and cost, as well as program data from the housing allowance program. Delays and confusion have been endemic because of this complexity.